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ABSTRACT

This short manual is designed to provide the practicing teacher with basic information on diabetes, and the role (s)he plays in providing health supervision and care for the diabetic child in his/her classroom. The document consists of four pages, describing (1) components of diabetes management and symptoms of diabetes; (2) emergency diabetic conditions (too little sugar, too much sugar in the blood) and emergency treatment; (3) the cause of diabetes; and (4) suggested extracurricular activities for the diabetic child. (ME)

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# WHAT THE TEACHER SHOULD KNOW ABOUT DIABETES

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NATIONAL INSTITUTE OF EDUCATION

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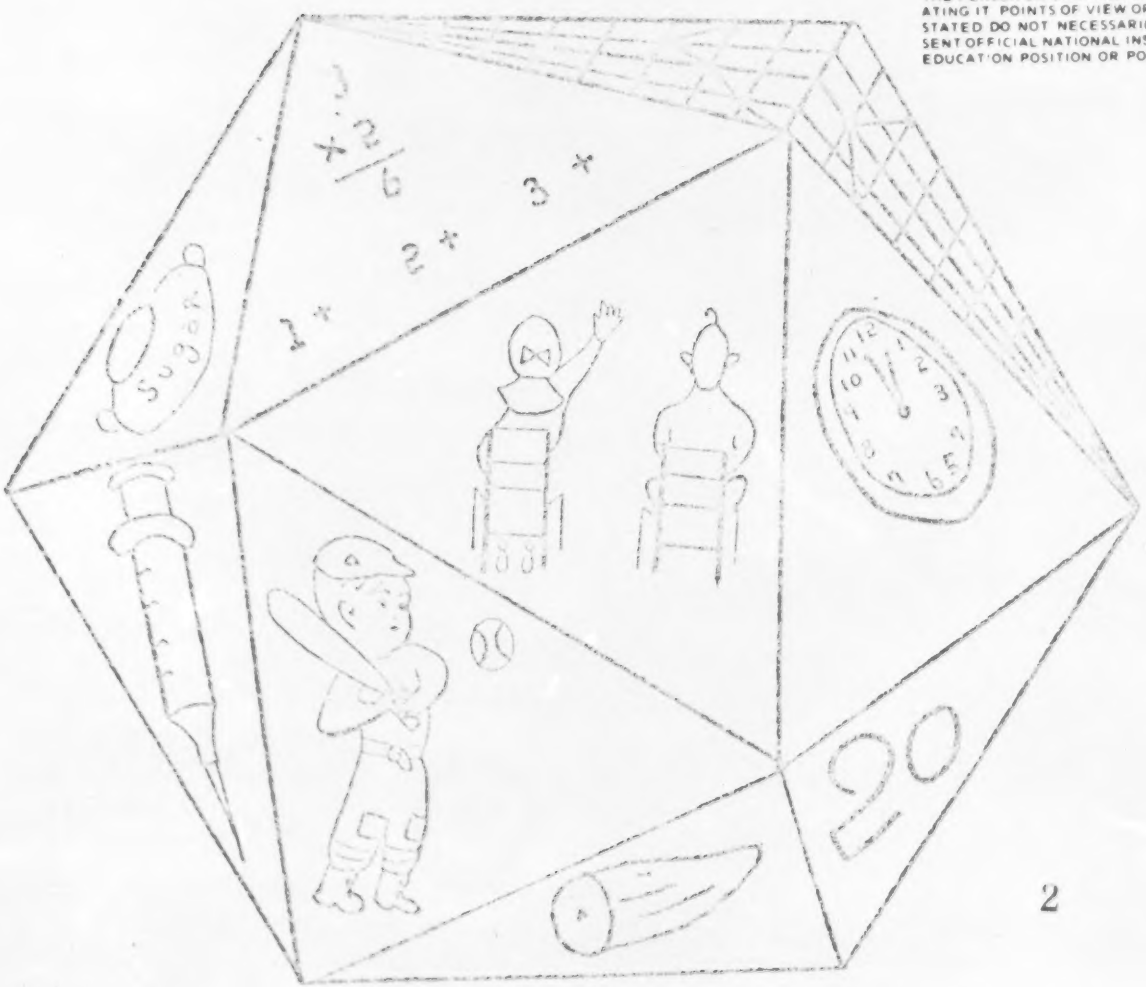


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## WHAT THE TEACHER SHOULD KNOW ABOUT DIABETES

The parents of a diabetic child should inform the school, the teacher, and the bus driver of the condition of the child for his well being. If a diabetic child is given the proper treatment and his diabetes is well managed, he can live a nearly normal life. The teacher should be aware that diet is part of the treatment and that the diabetic child is usually on a planned diet, that regular meal hours must be observed and that snacks are often needed to avert emergencies.

Cooperation between the teacher, parents and child will allow the child the best chance to accept his chronic condition and adjust to it. Diabetes is not now curable, but can be managed. The components of management are:

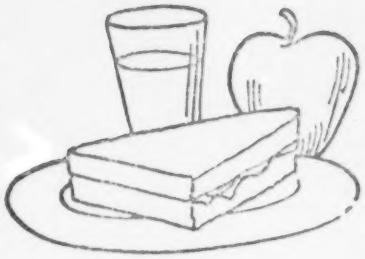
Diet
Insulin
Exercise
Timing

Emergencies can often be avoided in the classroom if the teacher recognizes the early signs of reactions in the child with diabetes.

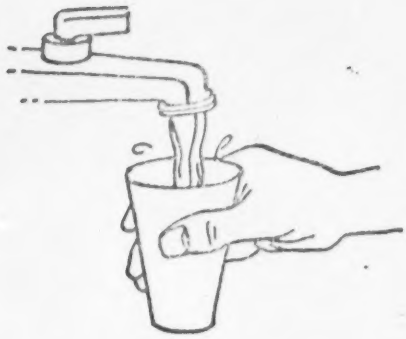
Is the child unusually pale or passive? Is he irritable, negative or difficult? Are his normal responses altered?

A child with undiagnosed diabetes may appear as a behavior problem or a slow learner.

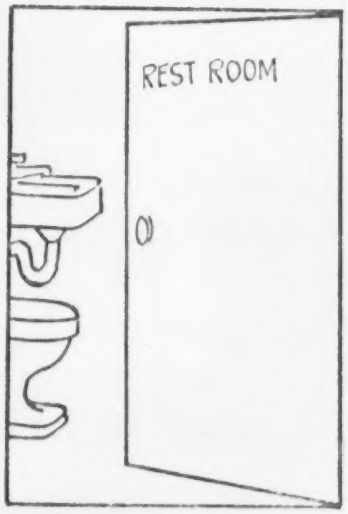
# SYMPTOMS OF DIABETES



Increased Hunger...
(*Polyphagia*)



Increased Thirst...
(*Polydipsia*)




Excessive Urination...
(*Polyuria*)

I. TOO LITTLE SUGAR IN THE BLOOD:

This condition called hypo (low) glycemia (blood sugar) results when the child does not eat enough - or does not eat all of his food - or when he exercises too much without eating additional food - or if he takes too much insulin.

This condition develops RAPIDLY and may have some of the following symptoms:

abrupt change of behavior
hunger
tingling of tongue or lips
sweating
pallor or sometimes flushing
headache
dizziness
weakness
unsteadiness or nervousness

Low blood sugar means that the child NEEDS A QUICK SOURCE OF SUGAR OR CARBOHYDRATE.

Quick sources of carbohydrate for a child with any of the above symptoms of low blood sugar:

1. Small 6-8 oz. cans of fruit juice; such as orange, grape, etc., or regular pop - such as coke.
2. Plastic squeeze bottle of honey.
3. Sugar lumps (2 - 3 large ones usually are sufficient).
4. Life savers or hard candies. (3-5 usually are sufficient.)

These can be given to the conscious child only. NEVER FORCE LIQUID DOWN THE THROAT OF AN UNCONSCIOUS PERSON.

II. TOO MUCH SUGAR IN THE BLOOD:

This condition known as hyper (high) glycemia (blood sugar) may develop if a child does not take his insulin - or if he eats too much, or eats foods with too much sugar in them - or does not space his meals correctly.

This condition develops rather SLOWLY but may have the following symptoms:

sweet or fruity odor to the breath
thirst
dullness
lack of appetite
deep breathing, and eventual loss of consciousness

If high blood sugar continues for any length of time a condition called acidosis develops.

THIS CONDITION - ACIDOSIS OR HIGH BLOOD SUGAR AND COMA REQUIRE A PHYSICIAN'S CARE.

If the teacher is aware of any of the above symptoms she should alert the parents or physician immediately.

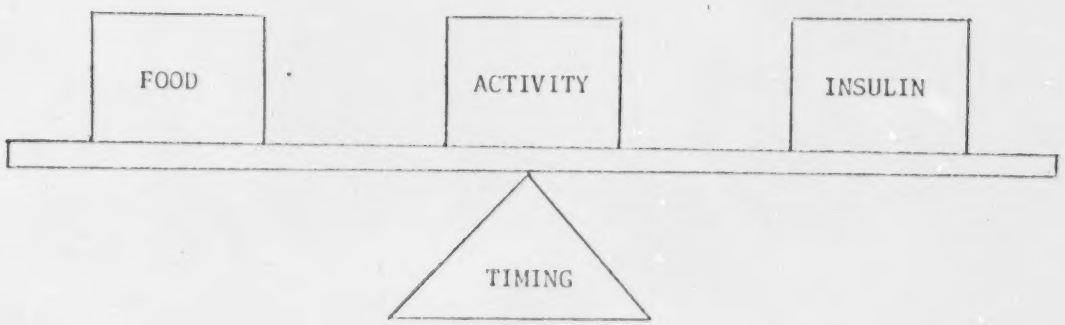
1. The body cannot turn food--mainly sugars and starches (carbohydrates) into energy.

2. This happens because there is not enough insulin produced by the pancreas or because it is not effective insulin.

3. The sugar in the form of glucose which is not turned into energy accumulates in the blood and spills over into the urine.

Too much sugar in the blood and urine are signs of diabetes mellitus.

The method of regulating the blood sugar consists of the following:



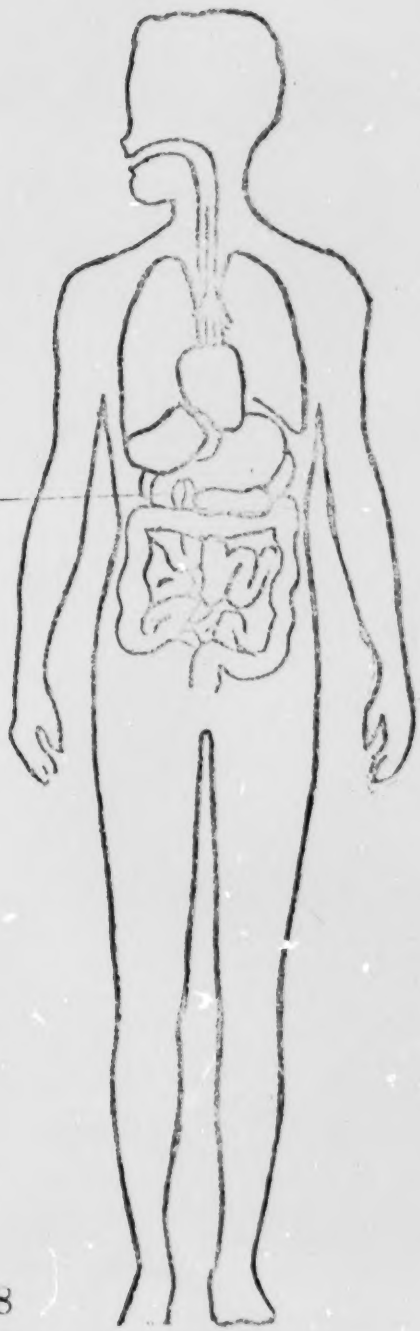

The diabetic child is most often dependent on insulin and must have his diet regulated according to the amount and kind of insulin, his needs for growth, his activity and his likes and dislikes.

Do not urge a child to eat, but observe him and be alert to any changes in his activity or responses.

The

PANCREAS

is an organ situated near the stomach. 90% of its activity is the making of digestive juices; it also makes insulin in the beta cells of the Islets of Langerhans. Insulin is necessary if the cells are to turn carbohydrates (starches and sugars) into energy.



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## EXTRA CURRICULAR ACTIVITIES

1. Exercise. Diabetic children should exercise, however, during periods of increased physical activity the physician may need to adjust the diet (allow extra feeding) or reduce insulin dosage. Teachers should be more alert to diabetic children during periods of increased exercise. Participation in the usual recess activities is encouraged.

2. Field trips. Diabetic children should participate in class field trips. The lunch period should be planned for the usual hour and allow time for the child to be home for the evening meal. In case of delay, a small snack should be available, milk or fruit, graham crackers, etc.

3. Social functions. Classroom parties are often held for special occasions. Special consideration for the diabetic child is important. Prior to the party the teacher should discuss the problem with the parents and plans made for food substitutions for the diabetic child, to replace the cookies, cake, etc., usually served. Recipes are available for "diabetic" cookies, etc.

## INJURIES

Any cut and scratches should be given first aid measures to prevent infection. If the injury requires more care, the parents and physician should be notified immediately.

## SUMMER CAMP FOR DIABETIC CHILDREN

Camp Sioux, a diabetic camp, is operated for one week each year for children 8-15 years of age. Located at Turtle River State Park, the camp is operated by the North Dakota Diabetes Association and sponsored by the Grand Forks, Kiwanis Club. The camping experience provides educational and recreational activities.

For further information contact: E. A. Hauna, M.D., Chairman, Camp Committee, Grand Forks, Clinic, Grand Forks, North Dakota 58201.

It is intended that this brief book on diabetes for the teacher be placed in a three-ring binder for reference. It is hoped that it will be helpful for the child and the teacher.